

CLAIMS

What is claimed is:

1. A method for embedding key information into a printed document comprising the steps of:

creating a first section comprising a first ink having a first color under white light; and

creating a second section comprising a second different ink, wherein the second ink comprises a fluorescent ink and has a second color under white light which is substantially the same as the first color, wherein the fluorescent ink has a fluorescence when subjected to fluorescent-exciting radiation, and wherein the first section and the second section are visually indiscernible from each other on the printed document in white light;

the second section comprising key information, which is selected or highlighted by a user during creation of the document, and the first section comprises non-selected information.

2. The method of claim 1, wherein the key information is selected or highlighted using word processing.

3. The method of claim 2, wherein the printed document is a document printed on paper, with the first section comprising words or symbols and the second section comprising words or symbols.

4. The method of claim 3, wherein the document is a card.

5. The method of claim 1, wherein the first and second sections each comprise a black color ink.

6. The method of claim 1, wherein the second section comprises at least two different fluorescent inks.

7. The method of claim 6, wherein the second section further comprises at least one invisible ink.

8. The method of claim 7, wherein the at least one invisible ink is used to print an invisible bar code or optical character recognition text.

9. A method for extracting key information comprising the steps of:

subjecting a printed document to a first image scanner, responsive to visible light for acquiring a first image of a first section for providing a first signal indicative of the first image; and

subjecting the printed document to a second image scanner, responsive to fluorescent emission for acquiring

a second image of a second section for providing a second signal indicative of the second image;

wherein the printed document is scanned into an electronic archival system, and key information of the second section is detected, extracted and indexed so that the scanned document can be retrieved based on the key information.

10. The method of claim 9, wherein the second section comprises key information, which is selected or highlighted by a user during creation of the document by word processing, and the first section comprises non-selected information.

11. The method of claim 10, wherein the first section comprises a first ink having a first color under white light; and the second section second section comprising a second different ink, wherein the second ink comprises a fluorescent ink and has a second color under white light which is substantially the same as the first color, wherein the fluorescent ink has a fluorescence when subjected to fluorescent-exciting radiation, and wherein the first section and the second section are visually indiscernible from each other on the printed document in white light.

12. The method of claim 9, wherein the first and second sections each comprise a black color ink.

13. The method of claim 9, wherein the second section comprises at least two different fluorescent inks.

14. The method of claim 13, wherein the second section further comprises at least one invisible ink.

15. The method of claim 14, wherein the at least one invisible ink is used to print an invisible bar code or optical character recognition text.

16. A system for extracting key information comprising:

a first image scanner, responsive to visible light for acquiring a first image of a first section of a printed document, for providing a first signal indicative of the first image; and

a second image scanner, responsive to fluorescent emission for acquiring a second image of a second section of the printed word processing document, for providing a second signal indicative of the second image;

wherein the printed document is scanned into an electronic archival system, and key information of the second section is detected, extracted and indexed so that the scanned document can be retrieved based on the key information.

17. The system of claim 16, wherein the second section comprises key information, which is selected or highlighted by a user during creation of the document by word processing, and the first section comprises non-selected information.

18. The system of claim 17, wherein the first section comprises a first ink having a first color under white light; and the second section comprising a second different ink, wherein the second ink comprises a fluorescent ink and has a second color under white light which is substantially the same as the first color, wherein the fluorescent ink has a fluorescence when subjected to fluorescent-exciting radiation, and wherein the first section and the second section are visually indiscernible from each other on the printed document in white light.

19. The system of claim 16, wherein the first and second sections each comprise a black color ink.

20. The system of claim 16, wherein the second section comprises at least two different fluorescent inks.

21. The system of claim 20, wherein the second section further comprises at least one invisible ink.

22. The system of claim 21, wherein the at least one invisible ink is used to print an invisible bar code or optical character recognition text.

23. A printed word processing document comprising:

a first section comprising a first ink having a first color under white light; and

a second section comprising a second different ink, wherein the second ink comprises a fluorescent ink and has a second color under white light which is substantially the same as the first color, wherein the fluorescent ink has a fluorescence when subjected to fluorescent-exciting radiation, and wherein the first section and the second section are visually indiscernible from each other on the printed word processing document in white light,

the second section comprising key information, which is selected or highlighted by a user during creation of the document by word processing, and the first section comprises non-selected information.

24. A system for embedding and extracting key information in the printed word processing document of claim 23 comprising:

a first image scanner, responsive to visible light for acquiring a first image of the first section of the printed word processing document, for providing a first signal indicative of the first image; and

a second image scanner, responsive to fluorescent emission for acquiring a second image of the second section of the printed word processing document, for providing a second signal indicative of the second image;

wherein the printed word processing document is scanned into an electronic archival system, and the key information of the second section is detected, extracted and indexed so that the scanned document can be retrieved based on the key information.

25. The system of claim 24, wherein the printed word processing document is a document printed on paper, wherein the first section comprises words or symbols and the second section comprises words or symbols.

26. The system of claim 24, wherein the first and second sections each comprise a black color ink.

27. The system of claim 24, wherein the second section comprises at least two different fluorescent inks.

28. The system of claim 24, wherein the second section further comprises at least one invisible ink.

29. The system of claim 28, wherein the at least one invisible ink is used to print an invisible bar code or optical character recognition text.

30. The system of claim 27, wherein the fluorescent inks differ in ultraviolet wavelengths at which they fluoresce, wherein the system classifies the key information based on the wavelengths.

31. A system for printing the word processing document of claim 23, the system comprising:

a print head system adapted to print at least two different inks on the document, including the first ink and the second different ink;

a controller for controlling application of the first and second inks by the print head system on the document, wherein the controller is adapted to print the first and second inks such that the first and second inks are visually indiscernible from each other in white light, and the second ink is discernible from the first ink when subjected to fluorescent-excitation radiation.

32. The system of claim 31, wherein the print head system comprises at least two print heads.

33. The system of claim 31, wherein the print head comprises a single print head adapted to pass by an area on the document at least two times, a first one of the times for printing the first ink and a second one of the times for printing the second ink.



34. The system of claim 31, wherein the first and second sections each comprise a black color ink.

35. The system of claim 31, wherein the second section further comprises at least one invisible ink.

36. The system of claim 35, wherein the at least one invisible ink is used to print an invisible bar code or optical character recognition text.

37. The system of claim 31, wherein the second section comprises at least two different fluorescent inks.

38. A method for embedding and extracting key information in the printed word processing document of claim 23 comprising the steps of:

subjecting the printed word processing document to a first image scanner, responsive to visible light for acquiring a first image of the first section for providing a first signal indicative of the first image; and

subjecting the printed word processing document to a second image scanner, responsive to fluorescent emission for acquiring a second image of the second section for providing a second signal indicative of the second image;

the first section and the second section each comprising a black ink;

wherein the printed word processing document is scanned into an electronic archival system, and the key information of the second section is detected, extracted and indexed so that the scanned document can be retrieved based on the key information.